

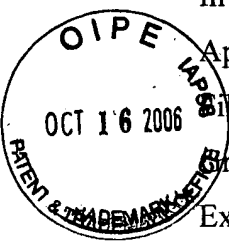
Serial No.: 10/788,569

Attorney Docket No.: 2001P14034WOUS

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TFW

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Anton Stempfle et al  
Application Number: 10/788,569  
Filing Date: 02/27/2004  
Group Art Unit: 3744  
Examiner: Harry B. Tanner  
Title: REFRIGERATING APPLIANCE



Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Dear Sir:

Pursuant to 37 CFR 1.192, Appellants hereby file an Appeal Brief in the above-identified application with a request for a four-month extension of time extending the period for reply to October 13, 2006. This Appeal Brief is also accompanied by the requisite fee set forth in 37 CFR 1.17(f).

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**(1) REAL PARTY IN INTEREST**

The real party in interest is the inventors, BSH Bosch und Siemens Hausgeraete GmbH, the Assignee in the application, which is a joint venture between Siemens AG and Robert Bosch GmbH, all three of which are German companies.

(2) **RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) STATUS OF CLAIMS**

Claims 8-15 are pending in the application, all of which are rejected and on Appeal.

**(4) STATUS OF AMENDMENTS**

Claims 8-15 on Appeal before the Board are those presented prior to the Final Office Action, dated November 15, 2006. No amendments were filed after the final rejection.

(5) **SUMMARY OF CLAIMED SUBJECT MATTER**

Claim 8 of the present application recites a refrigerating appliance. The inventive device comprises an inner chamber 9 enclosed by a heat-insulating housing 1. The inventive device also comprises a plurality of electrical or electromechanical components coupled to said inner chamber 9. (See Fig. 2 and the specification of the present application at pages 4-5) The inventive device also comprises said components including a coolant circuit 11, 15 for cooling said inner chamber 9. (See Fig. 2 and pages 4-5) The inventive device also comprises said components including at least one temperature sensor 10. (See Fig. 2 and pages 4-5) The inventive device also comprises a control unit 14 for controlling the operation of said components, said control unit including a test operating mode for checking the operativeness of at least some of said components. (See Fig. 3 and pages 5-7) The inventive device also comprises said control unit 14 checking the operativeness of said coolant circuit 11, 15 if first checking the operativeness of said temperature sensor 10 does not provide an indication of a malfunction of said temperature sensor 10. (See Fig. 3 and pages 5-7)

**(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

(a) Whether Claims 8-12 are unpatentable under 35 U.S.C. § 103(a) over US Patent No. 5,934,088 to Takeda (hereinafter "Takeda") in view of US Patent No. 4,381,549 to Stamp, Jr. et al (hereinafter "Stamp").

(b) Whether Claims 13-15 are unpatentable under 35 U.S.C. § 103(a) over Takeda in view of Stamp and further in view of U.S. Patent No. 4,663,940 to Suzuki et al. (hereinafter "Suzuki").



(7) **ARGUMENT**Rejection under 35 U.S.C. § 103(a) over Takeda in view of Stamp

Independent Claim 8 recites a refrigerating appliance, comprising: an inner chamber enclosed by a heat-insulating housing; a plurality of electrical or electromechanical components coupled to said inner chamber; said components including a coolant circuit for cooling said inner chamber; said components including at least one temperature sensor; a control unit for controlling the operation of said components, said control unit including a test operating mode for checking the operativeness of at least some of said components; and said control unit checking the operativeness of said coolant circuit if first checking the operativeness of said temperature sensor does not provide an indication of a malfunction of said temperature sensor.

Simply put, the operativeness of the coolant circuit is checked *only after* a check of the temperature sensor indicates that the sensor is functioning. Thus, the control unit will not perform a check on the coolant circuit if there is an indication of a malfunction of the temperature sensor.

Takeda discloses an error monitoring apparatus in a refrigerator detecting a plurality of errors and displaying the plural errors in the order of priority. The refrigerator includes a first temperature sensor (21), a second temperature sensor (22), a defrost temperature sensor (23), a clog sensor (24), a pressure switch (25) and a phase-reversal relay switch (26) to monitor and detect errors in the refrigerator. Fig. 4 of Takeda is a flow chart illustrating the various steps the refrigerator performs, including a temperature control routine (104), a defrost control routine (106), a temperature display control routine (108), an error detection step (110), and an alarm & display step (112). The error detection step (110) includes several error codes (E1-E9). (See col. 5, line 13, to col. 7, line 55) The refrigerator checks for the occurrence of all of these error codes as part of the error detection step (110) and displays the results of the plurality of errors in a specific order based on priority of the error. The error priority is described at col. 3, lines 58 to 61.

Stamp discloses a heat pump air conditioning system for a building having multiple temperature sensors within the building. Stamp performs an initial inquiry if all the temperature sensors are bad. If any of these temperature sensors are good, the system continues. Stamp teaches having multiple duplicative temperature sensors within the building that are interchangeable with one another. If only some of the sensors are bad, the system continues and functions with the other sensors.

In the Final Office action dated November 15, 2005, the Examiner states "It is the examiner's position that one of ordinary skill in the art would have considered it to have been obvious to modify the system of Takeda such that temperature sensors used to evaluate the proper operation of the system are first evaluated as being functional before they are used to evaluate other functions of the system in order to prevent erroneous malfunction indications in view of the teachings of Stamp."

Applicants respectfully disagree with the Examiner's rejection for three main reasons. First, there is no motivation in the prior art to make the proposed modification. Second, Takeda teaches away from the proposed modification and claimed invention. Third, Stamp teaches away from the proposed modification and claimed invention.

#### No Motivation in the Prior Art

First, the motivation cited by the Examiner for making the proposed modification is not supported by Takeda. The Examiner states the proposed modification would have been obvious so "temperature sensors used to evaluate the proper operation of the system are first evaluated as being functional before they are used to evaluate other functions of the system in order to prevent erroneous malfunction indications in view of the teachings of Stamp." Takeda does not rely on the temperature sensors to evaluate all the other functions of the system. Rather, Takeda includes several other sensors for checking the other functions of the system, such as the clog sensor (24), pressure switch (25), and phase-reversal relay switch (26). A malfunctioning temperature sensor in Takeda does not necessarily impact other tests on the coolant system using these other sensors. Takeda is different than the device of the Applicants' present application, which relies on the temperature sensors to check the operativeness of the coolant circuit.

The prior art itself, not the applicant's achievement, must establish the obviousness of the combination. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985) The Examiner identified the motivation for making the proposed modification as the desire to check the temperature sensors for malfunction "before they are used to evaluate other functions of the system." This motivation is then used to justify the position that the proposed modification would have been obvious. However, this motivation to make the proposed modification identified by the Examiner is found in the Applicants' own disclosure, not the prior art. The Applicants' present application discloses the configuration identified by the Examiner that relies on the temperature sensors to evaluate other functions. To the contrary, Takeda teaches using other non-temperature sensors to check other functions of the system. There is no teaching, suggestion or motivation in the prior art to make the proposed modification. One of ordinary skill in the art would not be motivated to modify Takeda to first check temperature sensors and then only continue checking the coolant system if the temperature sensors are functioning properly.

To establish a *prima facie* case of obviousness, there must be some teaching, suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Mere identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. See *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 163.5, 1637 (Fed. Cir. 1998); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C. § 103 is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Close adherence to this methodology is especially important in cases

where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." *Id.* (quoting *W.L. Gore & Assocs. Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)). "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references themselves must provide some teaching whereby the applicant's combination would have been obvious." *In re Gorman*, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991)

As described above, the Examiner's stated motivation for making the proposed modification is found in the Applicant's own disclosure, not the prior art. Takeda utilizes other non-temperature sensors to check other functions of the refrigerator. This suggests that any teaching, suggestion, or motivation possibly derived from the prior art is only present with hindsight judgment in view of the Applicants' present application. Applicants respectfully disagree with the Examiner's conclusions and request the rejection of Claim 8 be withdrawn.

#### Takeda Teaches Away

Second, the disclosure of Takeda teaches away from the claimed invention by teaching the detection and display of a *plurality* of errors. The entire purpose of Takeda is to detect and display a *plurality* of errors in the order of priority. (See col. 1, lines 42-46) As shown in Fig. 4 of Takeda, "Error Detection" is identified as a single step 110. Takeda describes this Error Detection step 110 in more detail at col. 5, line 13, to col. 7, line 55, which describes the multiple error code tests (E1-E9) that are performed as part of this step 110. Takeda teaches performing all of these tests (E1-E9) as part of this single step 110 and then determining the priority of the errors for display after the tests are completed. Takeda performs all the tests and does not stop if one of these tests indicates an error.

Stamp may teach performing an initial inquiry on the temperature sensors, but this is irrelevant for Takeda. The order in which the tests are performed in Takeda is irrelevant. Even if Takeda is modified to evaluate the temperature sensors first, Takeda

teaches continuing with the other tests despite detecting a malfunction in the temperature sensors. As described above, Takeda includes several non-temperature sensors (24, 25, 26) for checking the other functions of the system. The results from each test in Takeda are not necessarily dependent on the results from the other tests. The test order is irrelevant because Takeda teaches performing all the tests regardless of the result from each test. This is fundamentally different than the claimed invention which recites that the operativeness of the coolant circuit is checked *only after* the temperature sensor is determined to be operable.

Takeda teaches a priority list for the order in which the results of the tests are displayed, not performed. Takeda teaches performing all the tests regardless of whether the outcome is positive or negative and then displaying the results in order of priority. Even if the temperature sensor of Takeda is checked first and indicates a malfunction, Takeda will continue performing the other tests, such as checking the coolant circuit, despite the error message from the temperature sensors. Stopping the process after testing the temperature sensors directly contradicts with the entire purpose of Takeda, which is to provide a *plurality* of error messages in order of priority. In order to provide a *plurality* of error messages, Takeda must continue performing other tests. Therefore, Takeda teaches away from the proposed modification by teaching to continue with the testing process even after detecting a temperature sensors malfunction.

The entire purpose of Takeda is to detect and display a *plurality* of errors in the order of priority. Modifying Takeda to stop further testing if the temperature sensor malfunctioned would render Takeda unsatisfactory for its intended purpose. There can be no suggestion or motivation to make the proposed modification if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) Therefore, there is no suggestion or motivation to modify Takeda as proposed by the Examiner.

Stamp Teaches Away

Third, Stamp would not teach one of ordinary skill in art to modify Takeda to obtain the claimed invention. Claim 8 recites “said control unit checking the operativeness of said coolant circuit if first checking the operativeness of said temperature sensor does not provide an indication of a malfunction of said temperature sensor.” Stamp teaches a heat pump air conditioning system for a building having multiple duplicative temperature sensors within the building that are interchangeable with one another. Stamp performs an initial inquiry if *all* the temperature sensors are bad. If any of these temperature sensors are good, the system continues. If there is a malfunction in some of the sensors, the system continues and still functions properly with the other sensors. Stamp teaches to provide multiple sensors and proceed even if some of the temperature sensors are bad. This is fundamentally different than the claimed invention that only proceeds with checking the coolant circuit if the temperature sensor does not malfunction. A malfunction of some of the temperature sensors of Stamp will not stop the testing process. This is similar to a shot-gun approach of providing multiple sensors and hoping some of them work.

Applying the teachings of Stamp to Takeda would place multiple duplicative temperature sensors within each system of the refrigerator. The duplicative multiple sensor arrangement of Stamp may be satisfactory in a large building, but it is not practical in a refrigerator. Stamp teaches away from the proposed modification by teaching multiple duplicative sensors and proceeding with the testing process even if some of the sensors malfunction. One of ordinary skill in the art would not be motivated to modify a refrigerator to include the teachings of Stamp.

For these and other reasons, Takeda and Stamp, either alone or in combination, do not teach or suggest the subject matter defined by independent Claim 8. Therefore, Claim 8 is allowable. Claims 9-15 depend from Claim 8 and are allowable for the same reasons and also because they recite additional patentable subject matter.

Conclusion

In view of the foregoing discussion, it is respectfully requested that the Honorable Board of Patent Appeals and Interferences overrule the final rejection of Claims 8-15 over the cited art, and hold that the Appellants' claims be allowable over such art.

Respectfully submitted,



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October 11, 2006

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(8) **CLAIMS APPENDIX**

Claims 1-7 (Canceled)

8. A refrigerating appliance, comprising:  
an inner chamber enclosed by a heat-insulating housing;  
a plurality of electrical or electromechanical components coupled to said inner chamber;  
said components including a coolant circuit for cooling said inner chamber;  
said components including at least one temperature sensor;  
a control unit for controlling the operation of said components, said control unit including a test operating mode for checking the operativeness of at least some of said components; and  
said control unit checking the operativeness of said coolant circuit if first checking the operativeness of said temperature sensor does not provide an indication of a malfunction of said temperature sensor.

9. The refrigerating appliance according to claim 8, including said control unit set up to detect a malfunction of said temperature sensor, said malfunction being one of a short circuit or an electrical line break.

10. The refrigerating appliance according to claim 8, including said control unit checking the operativeness of said coolant circuit by outputting a command for operating said coolant circuit for a predetermined temperature change and comparing a sensed temperature change detected while validating said command with a set value change in temperature.

11. The refrigerating appliance according to claim 10, including said coolant circuit including an evaporator and said temperature sensor is arranged in contact with said evaporator.



12. The refrigerating appliance according to claim 11, including a display unit which can be activated by said control unit for displaying results of said operativeness tests.

13. The refrigerating appliance according to claim 12, including a plurality of operating keys for setting operating parameters and said test operating mode can be adjusted by actuating a combination of said keys.

14. The solenoid valve according to claim 13, including said combination of operating keys for setting said test operating mode are located on opposite sides of said display.

15. The refrigerating appliance according to claim 8, including a plurality of operating keys for setting operating parameters and said test operating mode can be adjusted by actuating a combination of said keys.

(9) **EVIDENCE APPENDIX**

None

(10) **RELATED PROCEEDINGS APPENDIX**

None



PTO/SB/17 (12-04v2)

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL

## For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

**Complete if Known**

Application Number	10/788,569
Filing Date	02/27/2004
First Named Inventor	Anton Stempfle et al
Examiner Name	Harry B. Tanner
Art Unit	3744
Attorney Docket No.	2001P14034WOUS

**METHOD OF PAYMENT** (check all that apply)

- ☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_
- ☒ Deposit Account Deposit Account Number: 502786 Deposit Account Name: BSH Home Appliances Corp.
- For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)
- ☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee
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**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES****Fee Description**

Each claim over 20 (including Reissues) \_\_\_\_\_

Each independent claim over 3 (including Reissues) \_\_\_\_\_

Multiple dependent claims \_\_\_\_\_

Fee (\$)	Small Entity Fee (\$)
50	25
200	100
360	180

**Total Claims** \_\_\_\_\_ **Extra Claims** \_\_\_\_\_ **Fee (\$)** \_\_\_\_\_ **Fee Paid (\$)** \_\_\_\_\_

\_\_\_\_\_ - 20 or HP = \_\_\_\_\_ x 50.00 = \_\_\_\_\_

HP = highest number of total claims paid for, if greater than 20.

**Indep. Claims** \_\_\_\_\_ **Extra Claims** \_\_\_\_\_ **Fee (\$)** \_\_\_\_\_ **Fee Paid (\$)** \_\_\_\_\_

\_\_\_\_\_ - 3 or HP = \_\_\_\_\_ x 200.00 = \_\_\_\_\_

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

**Total Sheets** \_\_\_\_\_ **Extra Sheets** \_\_\_\_\_ **Number of each additional 50 or fraction thereof** \_\_\_\_\_ **Fee (\$)** \_\_\_\_\_ **Fee Paid (\$)** \_\_\_\_\_

\_\_\_\_\_ - 100 = \_\_\_\_\_ / 50 = \_\_\_\_\_ (round up to a whole number) x \_\_\_\_\_ = \_\_\_\_\_

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount) \_\_\_\_\_

Other (e.g., late filing surcharge): Appeal Brief Fee \_\_\_\_\_

**Fees Paid (\$)**

500.00

**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent)	48,557	Telephone	252-672-7930
Name (Print/Type)	Craig J. Loest			Date	October 11, 2006

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket No. 2001P14034WOUS

**CERTIFICATE OF MAILING UNDER 37 CFR 1.8**

Serial No.: 10/788,569  
Filing Date: 02/27/2004  
Applicant: Anton Stempfle et al  
Title: REFRIGERATING APPLIANCE  
Date of Deposit: October 11, 2006  
Type of Document(s): Certificate of Mailing (1 page);  
Petition for Extension of Time, Original and Copy (2 pages);  
Fee Transmittal Form, Original and Copy (2 pages);  
Appeal Brief (19 pages);  
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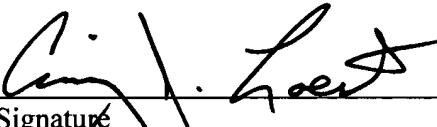
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